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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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1095	7590	03/18/2009		
NOVARTIS CORPORATE INTELLECTUAL PROPERTY ONE HEALTH PLAZA 104/3 EAST HANOVER, NJ 07936-1080			EXAMINER MCEVOY, THOMAS M	
			ART UNIT 3731	PAPER NUMBER
			MAIL DATE 03/18/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



### **DETAILED ACTION**

1. Currently claims 40-56 are pending. Claims 1-39 have been cancelled. Claims 44-56 have been withdrawn. Claims 40-43 are considered below.

#### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 40-43 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. In claim 40 the limitation "...wherein substantially all of a vibratable portion of the aperture plate comprises the dome shape" is recited. As seen in Figure 3 of Applicant's disclosure, the plate contains portions that are mounted to the periphery of the fluid opening which are not dome shaped. These portions are vibrated during operation. Examiner has determined the limitation to mean --wherein substantially all of a portion of the aperture plate which is not directly mounted to the support member comprises the dome shape-- for the purpose of this examination.

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art

are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 40-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robertson, et al. (US 5,487,378) in view of Maehara et al. (US 4,533,082).

Robertson et al. disclose a method of aerosolizing a liquid including the steps of electroforming a metal or metal alloy plate (e.g. nickel; col. 11, lines 22-23) to have apertures which taper smaller going from a back surface to the front surface where the droplets will be released; providing liquid at the rear surface of the plate; and vibrating the plate to eject fluid droplets through the apertures (col. 2, lines 48-64; col. 3 lines, 24-52; col. 11, lines 21-23). Robertson et al. do not disclose that the aperture plate has a dome shape. Maehara et al. disclose that an aperture plate 13a for an oscillating nozzle (Figure 1) can have a dome shape in order to spread-out the spray pattern (col. 3, lines 7-10). It would be obvious to one of ordinary skill in the art in view of Maehara et al. to form the aperture plate in a dome shape in order to spread out the spray pattern for a given application. It would have been obvious to one of ordinary skill in the art to have formed all of the aperture plate which is not directly mounted to the support member 52 in a dome shape because Maehara et al. essentially teach forming any portion with an aperture in a dome shape in order to spread out the spray. Since the apertures of Robertson et al. cover the entire area which is not directly mounted to the support member (Figure 4a), one of ordinary skill in the art would have recognized that this entire area should be dome shaped in order to spread out the entire spray pattern. If this was not done, some of the spray from the peripheral apertures would intersect the

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spray from the central apertures and disrupt the spray pattern. Furthermore, it would have been an obvious matter of design choice to have formed this entire portion in a dome shape vs. less than the entire portion, since Applicant has not disclosed that this specific feature solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the entire unmounted portion being dome shaped or less than the entire unmounted portion being dome shaped.

Robertson et al. do not specifically disclose that the electroformed plate metal is palladium, palladium alloy, palladium nickel or palladium-cobalt. Robertson et al. do disclose that the plate can be made like a microsieve and electroformed out of nickel as just one example (col. 3, lines 32-34). The selection of palladium and palladium alloys (including the claimed ratio) to entirely form or at least coat the plate would have been obvious since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416. Palladium and cobalt are known materials in the art for providing corrosion resistance to aperture plates and microsieves as evidenced by Witte (US 4,844,778).

### ***Response to Arguments***

6. Applicant's arguments filed January 6th 2009 have been fully considered but they are not persuasive. Applicant has again argued that there is no motivation to make the aperture plate of Robertson et al. with palladium or palladium alloy. Examiner respectfully disagrees and defers to the previous response of record to this argument. Examiner has further pointed out in the rejection above a motivation for forming the

entire portion of the aperture plate, which is not directly mounted to the support member, in a dome shape.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Witte (US 4,844,778) discloses a microsieve with tapered apertures (Figure 2a) which is electroformed out of nickel and has a cobalt or noble metal coating to provide corrosion resistance (col. 2, lines 7-13). This reference provides ample motivation for forming the aperture plate of Robertson et al. with the claimed composition if it were not already obvious to one of ordinary skill in the art as stated above in the rejection.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas Mcevoy whose telephone number is (571)270-5034. The examiner can normally be reached on M-F, 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anhtuan Nguyen can be reached on 571-272-4963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TM

/Anhtuan T. Nguyen/  
Supervisory Patent Examiner, Art Unit 3731  
3/15/09